



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,308	01/15/2002	Douglas D. Fletcher	7780.779US01	8721

32692 7590 06/08/2004

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

PEREZ, ANGELICA

ART UNIT	PAPER NUMBER
----------	--------------

2684

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

3

Office Action Summary

Application No.

10/050,308

Applicant(s)

FLETCHER ET AL.

Examiner

Angelica M. Perez

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 7-8, 12-13, 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Menard (Menard et al.; US Pub. No.: 2003/0,013,503 A1).

Regarding claim 1, Menard teaches of a wireless intercom system comprising (paragraph 0001) a wireless intercom unit comprising (figure 4, item 114): (a) an electronics housing including a first side, where the first side is configured to interface with a planar surface (figure 4, item 116 and paragraph 0035; where the first side corresponds to the side that will be in contact with the wall or table); (b) a microphone configured to receive an audio signal input (figure 1, item 13 and paragraph 0021), the microphone located on a portion of the housing other than the first side (figure 4, item

140; where the microphone is located opposite from the first side that is in contact with the wall/table); (c) a speaker configured to broadcast an audio signal output (figure 1, item 130; e.g., "played out loud"), the speaker located on a portion of the housing other than the first side (figure 4, item 130; speaker being opposite to the first side that has contacts with the wall/table); (d) a first channel transceiver for a first channel radio frequency range operably connected to the microphone and the speaker (paragraph 0020; where microphone and speaker are "coupled" to the transceiver); and (e) an input device located on a portion of the housing other than the first side (paragraph 0020, lines 10-11; where a push-to-talk switch allows input of voice).

Regarding claim 2, Menard teaches all the limitations of claim 1. Menard further teaches where the electronics housing includes a second side where the second side is configured to face a user when the wireless intercom unit is resting on the first side, where the microphone and input device are located on the second side (figure 4, item 116 and paragraph 0035; where the first side corresponds to the side that will be in contact with the wall or table and the second side faces the operator as seen in figure 4).

Regarding claim 3, Menard teaches all the limitations of claim 2. Menard further teaches where the speaker is located on the second side (figure 4, item 140).

Regarding claim 4, Menard teaches all the limitations of claim 1. Menard further teaches where the first side is substantially flat (figure 4, item 116 and paragraph 0035; where the first side that will be in contact with the wall or table is "substantially flat").

Regarding claim 5, Menard teaches all the limitations of claim 1. Menard further teaches the first side comprises a supporting structure to support the wireless intercom unit when it is set on a planar surface (figure 4, item 116 and paragraph 0035).

Regarding claim 7, Menard teaches all the limitations of claim 1. Menard further teaches where the wireless intercom unit further comprises a bracket attached to the first side configured to be mounted on a substantially vertical planar surface (paragraph 0035; where "bracket" corresponds to the housing being "adapted for mounting to a wall" indicating a preference of design).

Regarding claim 8, Menard teaches all the limitations of claim 1. Menard further teaches where the input device is selected from a group of a power control input device, a volume control input device, a channel control input device and a page mode input device (paragraphs 0004 and 0023; where the examiner has selected from the choices given, "page mode input device").

Regarding claim 13, Menard teaches all the limitations of claim 1. Menard further teaches where the wireless intercom unit further comprises a second channel transceiver for a second channel radio frequency range, where the input device is a channel control input device configured to select the first or second channel transceiver (paragraph 0009, "multiple channel capability" and paragraph 0062, "control channel").

Regarding claims 12 and 18, Menard teaches of a wireless communication system comprising (paragraph 0001): (a) a wireless intercom unit comprising (figure 4, item 114): (i) a first channel transceiver for a first channel radio frequency range (paragraph 0020); and (ii) a receiver for a remote switch radio frequency range; (iii) a microphone for receiving an audio input (figure 1, item 13 and paragraph 0021); (iv) a speaker for broadcasting an audio output (figure 1, item 130; e.g., "played out loud") ; and (b) a switch comprising (paragraph 0013): (i) a housing (paragraph 0012); where the switch is inside the housing) (ii) a pressure sensor located inside or on the surface of the housing (paragraph 0012; where the pressing of the switch activates the system); and (iii) a radio frequency transmitter for the remote switch radio frequency range (paragraph 0064; where BluetoothTM handles radio frequency transmission):

Regarding claim 20, Menard teaches all the limitations of claim 18. Menard teaches where the switch housing comprises a rubber tread surface (paragraph 0020; where the "rubber tread surface" corresponds to a designer's choice that facilitates holding).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menard in view of Gertz (Gertz, Jonathan; US Patent No.: D371,784 S).

Regarding claim 6, Menard teaches all the limitations of claim 5.

Menard does not teach where the supporting structure comprises four posts on the first side.

In related art concerning the design of an intercom unit, Gertz teaches of a supporting structure comprises four posts on the first side (see figure 6).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Menard's intercom system with Gertz's intercom design as an inventor's design choice.

Regarding claim 9, Menard teaches all the limitations of claim 1. Gertz further teaches where the microphone comprises an elongated neck to support the microphone above the electronics housing (See figure 2).

5. Claim 10-11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menard in view of Fitzgerald (Fitzgerald, Robert; US Patent No.: 5,113,428 A).

Regarding claim 10, Menard teaches all the limitations of claim 1.

Menard does not teach further teaches of an earpiece configured to be worn on a ear of a user, the earpiece comprising an earpiece speaker, an earpiece microphone, and an earpiece transceiver for an earpiece radio frequency range; and (b) where the wireless intercom unit further comprises an earpiece transceiver for the earpiece radio frequency range.

In related art concerning a cordless telephone unit used as an intercom, Fitzgerald teaches of an earpiece configured to be worn on a ear of a user (lines 6-8 of the abstract), the earpiece comprising an earpiece speaker (lines 6-8 of the abstract), an earpiece microphone (lines 8-9 of the abstract), and an earpiece transceiver for an earpiece radio frequency range (lines 2-4 of the abstract); and (b) where the wireless intercom unit further comprises an earpiece transceiver for the earpiece radio frequency range (lines 2-4 of the abstract).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Menard's intercom system with Fitzgerald's headset in order to provide versatility to the system.

Regarding claim 14, Menard teaches of a wireless communication system comprising (paragraph 0001): a wireless intercom unit comprising (figure 4, item 114): an electronics housing (figure 4, item 116); a microphone configured to receive an audio signal input (figure 1, item 13 and paragraph 0021); a first channel transceiver for the first channel radio frequency range (paragraph 0020); Fitzgerald teaches of an earpiece transceiver for an earpiece radio frequency range (lines 2-4 of the abstract); a speaker for broadcasting the audio signal output; and (lines 6-8 of the abstract); an earpiece microphone (lines 8-9 of the abstract); an earpiece transceiver for an earpiece radio frequency range (lines 2-4 of the abstract); and a wearable structure to secure the earpiece near a user's ear (see figure 1).

Regarding claims 11 and 15, Menard in view of Fitzgerald teaches all the limitations of claim 10 and 14. Fitzgerald further teaches where the earpiece further comprises a curved structure configured to fit around the back side of the outer ear of a user (figure 1, item 12), where the earpiece speaker is connected to the curved structure and is configured to rest proximate the outer ear of the user (see figure 1, item 12), where the earpiece microphone is connected to the earpiece speaker and is configured to be in close proximity to the mouth of the user (see figure 1, item 62).

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Menard in view of Voroba (Voroba et al.; US patent No.: 6,311,071 B1).

Regarding claim 17, Menard teaches all the limitations of claim 14.

Menard does not teach where the wireless intercom unit further comprises a switch for disabling the speaker and microphone.

In related art concerning a low-feedback compact wireless telephone that functions as an intercom, Voroba teaches of a switch for disabling the speaker and microphone (page 9, lines 31-35).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Menard's intercom system with Voroba's switch for disabling the speaker and microphone in order to save energy when the microphone is not in use, also, to make smooth transition from one mode to another.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Menard in view of Pavitt (Pavitt William H. Jr.; US Patent No.: 4,517,413).

Regarding claim 19, Menard teaches all the limitations of claim 18.

Menard does not teach where the switch is sized to be operated by a user's foot.

In related art concerning a telephone triggered switching system that perform intercom functions, Pavitt teaches where the switch is sized to be operated by a user's foot (column 2, lines 14-26).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Menard's intercom system with Pavitt's foot switch in order to add convenience and accessibility to the system.

Art Unit: 2684

Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menard in view of Fitzgerald and further in view of Nishimoto (Nishimoto et al.; US Patent No.: 5,402,497 A).

Regarding claim 16, Menard in view of Fitzgerald teaches all the limitations of claim 14.

Menard in view of Fitzgerald does not teach where the earpiece transceiver of the intercom unit and the earpiece transceiver of the earpiece are configured to operate at a lower power than is the first channel transceiver.

In related art concerning a headphone apparatus for reducing circumference noise, Nishimoto teaches where the earpiece transceiver of the intercom unit and the earpiece transceiver of the earpiece are configured to operate at a lower power than is the first channel transceiver (column 8, lines 60-68; where the earpiece operates at lower level than the first channel transceiver).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Menard's intercom system with Nishimoto's lower power earpiece operation in order to save battery power.

Regarding claim 21, Menard teaches all the limitations of claim 18. Nishimoto further teaches where the transmitter of the switch is configured to operate at a lower power than is the first channel transceiver (column 8, lines 60-68; where the earpiece operates at lower level than the first channel transceiver).


Art Unit: 2684

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.


Angelica Perez
(Examiner)


NICK CORSARO
PATENT EXAMINER

Art Unit 2684

May 26, 2004